

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
1998 Biennial Regulatory Review -) MM Docket No. 98-93
Streamlining of Radio Technical Rules)
Parts 73 and 74 of the Commission's)
Rules)

**REPLY COMMENTS
OF
CREATIVE EDUCATIONAL MEDIA CORPORATION, INC.**

Comes now **CREATIVE EDUCATIONAL MEDIA CORPORATION, INC.**
("Creative"), by Counsel, pursuant to the *Notice of Proposed Rule Making and Order ("NPRM")*, FCC 98-117 (released June 15, 1998), as modified by Order, DA 98-2302 (released November 13, 1998) and hereby respectfully submits these Reply Comments in the above-captioned Rule Making proceeding. Creative is a non-profit, tax-exempt, educational and religious licensee and permittee of the Commission. In response to the certain Comments filed in this proceeding, Creative submits the following:

1. The Commission's NPRM acknowledges that one of the primary objectives of this proceeding is to explore the concept of "negotiated interference" and other procedures and policies that may unduly impede the coordinated efforts of broadcasters to improve service. *NPRM, at para. 3.*

2. The matters at issue in this proceeding are extremely important to Creative for several reasons. Creative is the licensee or permittee of the

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following full service broadcast stations: KMSI-FM (Moore, Oklahoma), KNYD-FM (Broken Arrow, Oklahoma), WYCS-FM (Yorktown, VA), KDKR-FM (Decatur, Texas), KOZO-FM (Branson, Missouri), and WOFN-FM (Beach City, Ohio). To the extent negotiated interference agreements may someday permit Creative to better serve the public in the aforementioned communities, those possibilities should not be thwarted. Moreover, Creative is also an applicant for new noncommercial FM broadcast facilities in Coweta, Oklahoma (File No. BPED-960412MB) and Coachella, California (File No. BPED-970324MA), and noncommercial TV facilities in Tulsa, Oklahoma (File No. BPCT-960701KG).

Creative's Coweta, Oklahoma Application

3. In the Coweta proceeding, Creative and its competitor applicant, The University of Tulsa ("University") negotiated a mutual interference agreement to permit both applications to be granted, and they submitted a joint waiver request (of Section 73.509(a)) to the Commission regarding the same. To date, the Commission has not acted favorably on the waiver request.

4. Attached hereto, on behalf of Creative, is the Engineering Statement of Communications Technologies, Inc. ("CTI"). CTI addresses certain Comments filed by Sound of Life, the National Association of Broadcasters, and The Association of Federal Communications Commission Consulting Engineers. As CTI explains, the Commission should not implement a noncommercial educational 63 dBu siting restriction, but instead should

implement a 1% interference area maximum, as determined using the ratio method. CTI explains that the Commission currently utilizes the ratio method of calculations for the Low Power Television service, as well as in the DTV proceeding to calculate interference between DTV and NTSC facilities. Accordingly, Creative urges the Commission to be consistent by permitting use of the ratio method for the noncommercial FM radio service as well. CTI further explains how the public interest will be served if the ratio method were to be used for resolution of Creative's Coweta application./¹

5. By way of background summary, Creative's application for Channel 201C2 at Coweta, Oklahoma was originally filed on April 12, 1996. On October 23, 1996, Creative amended its application to specify a new transmitting site (including a change in Effective Radiated Power and Height Above Average Terrain).

6. By letter dated March 26, 1997,, the Commission recognized the mutual exclusivity between the Creative and University applications, and requested each party to amend its application to address certain identified issues.

7. In response to the Commission's March 26, 1997 letter, Creative amended its application on April 25, 1997 to resolve a tower height

¹ If necessary, Creative urges the Commission to issue a *Further Notice of Proposed Rule Making* to address the use of the ratio method for the noncommercial FM radio service if it is determined that such matters are beyond the scope of this rule making proceeding.

discrepancy, and again on April 30, 1997 to correct a typographical error on Section V-B, Question 9. University amended its application on May 16, 1997 to resolve certain TV Channel 6 discrepancies, and to address intermodulation interference issues with respect to KRCS-FM at Claremore, Oklahoma.

8. As the Commission now recognizes, Creative's application is mutually exclusive with University's application for Channel 204C2 at Tulsa, Oklahoma, since each proposal specifies a third adjacent channel to the other, and because the proposed 100 dBu contours of each proposal are located within the 60 dBu service contour of the other proposal.

9. Section 73.509(a) Waiver Request: Creative strongly believes that, under the current rules, a waiver of §73.509(a) is justified in this instance, to permit the grant of both pending applications, because the area of interference associated with each proposal is exceptionally *de minimis* -- less than 0.04% of the area and less than 0.002% of the population of either proposal exists in the interference area among both applicant's proposed 60 dBu (1 mV/m) service contour. Creative's proposal causes interference to University in a 2.8 square kilometer area, comprising 123 persons, and University's proposal causes interference to Creative in a 2.0 square kilometer area, comprising 30 persons. The interference free area of both proposals entails 99.96% of the original proposed 60 dBu contour of each applicant, and more than 99.98% of the population to be served by each original proposal. The extremely *de minimis* nature of the mutual interference is of critical importance when compared to the magnitude of the new radio service both

Creative and the University propose to initiate./²

10. The joint waiver request of Creative and the University fully complies with recent Commission precedent with respect to third adjacent contour overlap for noncommercial, educational stations. In *Educational Information Corporation (WCPE-FM)*, 6 FCC Rcd 2207 (1991) the Commission recognized that second or third adjacent overlap of noncommercial educational stations is clearly distinguishable -- and less serious -- than co-channel or first adjacent channel overlap. "The Commission has long recognized the unique characteristics of the noncommercial service and the need for flexibility to respond to the growing demand for such service." *Id.*, at para. 10. Accordingly, since the amount of prohibited overlap would affect less than one percent of the population and area within WCPE's proposed 1 mV/m contour, the §73.509 waiver was granted.

11. Seventeen months after the Commission granted the §73.509 waiver to WCPE-FM, it repeated the process in considering the mutually exclusive applications of WFUV-FM (BPED-831118AL), WFMU-FM (BPED-890913ID), WSHU-FM (BPED-900126IB), WWNJ-FM (BPED-900202IA),

² Prior to the 1991 relaxation of the §73.509 waiver standards to be applied in cases of second and third adjacent channel overlap, the Commission required a showing that no alternative transmitter sites or frequencies were available. See e.g., *Public Notice "Delegation of Authority to the Chief of the Broadcast Bureau to Waiver Small Amounts of Interference Received by Non-Commercial Educational FM Proposals*, 49 RR 2d 1524 (1981). Although such a showing of alternative transmitting sites or frequencies is no longer necessary, in this instance there are no other transmitting sites or frequencies available to resolve these matters.

Westchester Council for Public Broadcasting (BPED-840423IC), Penn Jersey Educational Radio Corporation (BPED-910715MG) and Western Connecticut State University (BPED-910715MJ). In *Letter Ruling 1800B3-AJA (dated September 30, 1992)* a waiver of \$73.509 was granted to WFUV-FM and WFMU-FM, and the Commission encouraged Penn Jersey to seek an \$73.509 waiver so that its application could be independently processed and granted. In so doing, the Commission cited *Educational Information Corporation (WCPE-FM)*, *supra*.

12. Under the current rules, a Commission waiver grant of the third adjacent channel overlap between Creative and the University will result in the institution of two new noncommercial radio services, each of would could serve a potential audience of over 631,000 persons, and both of which might cause interference to a total population of 153 persons. Where, as here, the benefit of increased noncommercial educational service so heavily outweighs the potential for interference in a very small and sparsely populated area, and because no alternative transmitting sites or frequencies are available, a waiver of \$73.509 is warranted. Nonetheless, should the Commission adopt the ratio method of calculation in this proceeding and not employ a 63 dBu siting restriction, as CTI's attached engineering statement explains, Creative's Coweta application could be granted without the necessity of a waiver.

Conclusion

WHEREFORE, the above premises considered, Creative supports the use

of negotiated interference agreements, including use of the ratio method, for noncommercial FM radio stations and applicants when second or third adjacent channel operation is proposed.

Respectfully submitted,

**CREATIVE EDUCATIONAL MEDIA
CORPORATION, INC.**

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ENGINEERING STATEMENT
IN SUPPORT OF REPLY COMMENTS
IN THE MATTER OF
MM DOCKET NO. 98-93
1998 BIENNIAL REGULATORY REVIEW
STREAMLINING OF RADIO TECHNICAL RULES IN
PARTS 73 AND 74 OF THE COMMISSION'S RULES
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SUMMARY

Creative Educational Media Corporation ("Creative") is a licensee of full service NCE FM stations in Oklahoma, Missouri, Virginia and Texas, and applicant for new full service NCE FM stations in California and Oklahoma. As an NCE station operator who wishes to expand its program service and serve the public through the construction of new NCE broadcast facilities, **Creative** is very interested in the Commission's proposal to modify the Rules to allow negotiated interference and to allow received interference of not greater than 5% within the affected station's protected contour. **Creative** has reviewed a number of the Comments filed in this proceeding which address this proposal and offers the following Reply Comments.

PROPOSED 63 dBu CONTOUR LIMITATION

In paragraph 21 of the NPRM, the Commission proposes to prohibit second and third adjacent channel stations from proposing transmitter sites within an affected station's 63 dBu contour. The Comments filed by Sound of Life, (Inc.) reflect, in great part, the technical view shared by **Creative**, "Co-location or near co-location of second and third adjacent channel stations will offer a sound means by which to increase NCE FM service without increasing interference to existing stations." Sound of Life then goes on to support its statement by saying that interference must be calculated on the ratio method and that such a calculation will show no, or de minimis, interference to an affected station in many cases.

Creative strongly urges the Commission not to implement the NCE 63 dBu siting restriction, but instead to implement a 1% interference area maximum, as determined using the ratio method, when the proposed

site is inside the predicted 63 dBu contour of another station. This will serve to prevent any abuses which the Commission has voiced concern while providing the flexibility needed to grant significant facility improvement or to resolve pending mutual exclusivities between new NCE stations which propose second or third adjacent channel contour overlap. There is significant historical and technical evidence to support this recommendation.

1. The Commission, as a matter of policy, has been accepting and granting FM translator applications which propose to locate inside the primary service contour of a second or third adjacent channel station when it is demonstrated that no interference should exist to the affected station. The showings of no interference are typically made by a proper choice of the transmitting antenna to limit downward radiation, locating the antenna at a sufficient height above the ground, and locating the translator sufficiently close to the affected station that the station's signal is very strong (typically greater than 63 dBu) with respect to the translator. In the last few years, a number of FM translator stations have gone on the air with no reports of interference and very acceptable translator service. These situations are a proof that second and third adjacent channel FM stations can be operated well within the 63 dBu contour without causing interference to the affected station.
2. On April 3, 1989, the Commission granted experimental authorization to two NCE FM stations in Memphis, Tennessee operating on third adjacent channels. WKNO, Channel 216C1, was authorized for an ERP of 100 kW, while WSMS, Channel 219C2, was authorized for an ERP of 25 kW. The site to site separation was only 3.2 km and clearly well within the 63 dBu contours. A detailed measurement program was required by the Commission as a special condition of the grant. It is our understanding that no interference was found to exist under the experimental authorization and that the Commission, therefore, granted WKNO and WSMS (now WUMR) permanent licenses for these facilities. This is further proof of the viability of third adjacent channel stations operating well within the 63 dBu contour without interference.

3. **Creative** has on file an application for a new NCE FM at Coweta, Oklahoma, Channel 201C2, 20 kW ERP @ 230 m HAAT. This application is mutually exclusive with an application for Channel 204C2 at Tulsa, Oklahoma by the University of Tulsa, specifying an ERP of 5 kW and HAAT of 325 meters. The two sites are separated by a distance of 19.5 kM and are not grantable without a waiver of *Section 73.509* of the Commission's Rules. **Creative** believes that this is an excellent example of the relief and benefit that would occur if the Commission were to implement the ability to negotiate interference for new stations of less than 1% when a second or third adjacent channel overlap is proposed. On May 15, 1997, **Creative** and the University of Tulsa submitted a waiver request based on the ratio method. The principal characteristics of the waiver were as follows:

	<u>Creative</u>	<u>U. of Tulsa</u>
60 dBu proposed population:	631,434 persons	701,093 persons
Area:	5,452 sq. kM	6,520 sq. kM
Interference population:	123 persons	30 persons
Area:	2.8 sq. kM	2.0 sq. kM
Area of interference as % of 60 dBu:	0.04%	0.04%
Population in interference area as % of total 60 dBu pop:	0.0048%	0.0175%

Creative believes that this is an excellent example of the public interest associated with the Commission's proposal to allow negotiated interference. **Creative** believes that the benefit is so outstanding that it only makes practical sense to widen the scope of the proposed Rule change and make it applicable to new NCE FM as well as existing NCE facilities.

4. In MM Docket No. 96-120, Grandfathered Short Spaced FM Stations, R & O released August 8, 1997, the Commission solicited Comments on the matter of eliminating second and third adjacent channel spacing requirements for grandfathered short spaced stations.

Paragraph 20 of the R & O states, “of the parties providing initial and reply Comments on this proposal, most agree that we should eliminate second and third adjacent spacing requirements for grandfathered short spaced stations.” Emphasis added.

Reviewing Comments in the Rulemaking did reveal that there was a difference in the ability of a receiver to reject a second adjacent channel signal when compared to a third adjacent channel signal. Even NAB, arguably the party expressing the greatest concern over interference, provided no data which would support the likelihood of third adjacent channel interference existing in today’s receivers. It is noted that NAB test data submitted in the NPRM by NAB identified two receivers that exhibited interference within the 40 dB U to D ratio found in the FCC Rules for second adjacent channel operation.

Since there is a logical difference in second and third adjacent channel receiver selectivity, and the Commission has historically been loath to authorize new stations with interference, perhaps it would be wise to treat second and third adjacent channel stations differently rather than as a group. Put differently, based on all we know about today’s receivers, and the base of experience that now exists with grandfathered FM stations and FM translators inside the 63 dB contour of a full service station, the Commission can grant new facility applications specifying less than 1% theoretical interference without fear of actual interference occurring.

5. The FCC’s Low Power Television Branch regularly accepts ratio method calculations to prove a lack of interference from LPTV stations to full service television stations located well inside the full service station service contour. See paragraph 99 of the MO&O on Reconsideration of the Sixth Report and Order in MM Docket No. 87-268.
6. In the Commission’s DTV proceeding, the ratio method is used for calculating interference between DTV and NTSC facilities, see *Section 73.623*.

As important is the concept of minimal interference for co-located, or near co-located, stations operating on adjacent channels. *Section 73.623(d)(2)* allows adjacent channel DTV stations to be located within 24 km of each other and an adjacent channel NTSC station to be located within 12 km of a DTV facility. These Rules are based on the realization that locating adjacent channel stations close to each other (at higher signal level contours) is the proper means of preventing interference.

OTHER COMMENTS CONCERNING NEGOTIATED INTERFERENCE

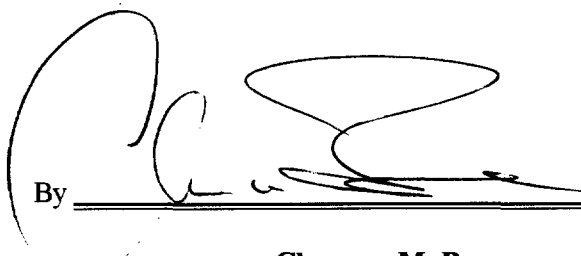
The Association of Federal Communications Commission Consulting Engineers (“AFCCE”) has voiced support for the ratio method rather than the contour overlap method. AFCCE supports the proposal to prohibit siting a second or third adjacent channel station within the 63 dBu contour of an NCE station to avoid interference. Based on the three examples cited above, it is believed that AFCCE’s concerns can be met by limiting the interference area to 1% as proposed by **Creative**, or an even more de minimis value as believed appropriate by the Commission. This would clearly be in the public interest. It is noted in the Comments of duTreil, Lundin & Rackley that precedence exists for calling any interference of less than 0.5% as 0% for administrative or legal purposes.

V Soft Communications supports the Commission’s negotiated interference proposal but specifically states that it does not support the 63 dBu restriction. **Creative** agrees with V Soft’s analysis that there may be “very good reasons” to allow negotiated interference within the 63 dBu contour.

CONCLUSION

Creative supports Comments filed by several commenting parties in this proceeding who are in favor of allowing negotiated interference for NCE FM stations when second or third adjacent channel operation is proposed, the ratio method is utilized, new as well as existing facilities are allowed to employ the Rule, and there is no 63 dBu contour prohibition. **Creative** is especially concerned with the 63 dBu limitation. This limitation is not based on the best available engineering judgement. As we have seen in recent Commission actions concerning DTV, the best way to eliminate adjacent channel interference is to put the adjacent channel sites in closer proximity where the signal levels are higher and interference will not occur.

The foregoing was prepared on behalf of **Creative Educational Media Corporation** by Clarence M. Beverage of *Communications Technologies, Inc.*, Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.

By  _____
Clarence M. Beverage
for Communications Technologies, Inc.
Marlton, New Jersey

SUBSCRIBED AND SWORN TO before me,

this 3rd day of December, 1998,

Esther G. Sperbeck, NOTARY PUBLIC

ESTHER G. SPERBECK
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES OCT. 15, 2002